

Rec'd PCT/PTO 20 SEP 2004



10/507098

PCT

## RAW SEQUENCE LISTING

DATE: 09/20/2004

PATENT APPLICATION: US/10/507,098

TIME: 13:34:22

Input Set : A:\21050yp.txt

Output Set: N:\CRF4\09172004\J507098.raw

4 <110> APPLICANT: Emini, Emilio A.  
 5 Shiver, John W.  
 6 Chastain, Michael  
 7 Casimiro, Danilo R.  
 8 Fu, Tong-Ming  
 9 Liang, Xiaoping  
 11 <120> TITLE OF INVENTION: METHOD OF INDUCING AN ENHANCED IMMUNE  
 12 RESPONSE AGAINST HIV  
 14 <130> FILE REFERENCE: 21050YP  
 C--> 16 <140> CURRENT APPLICATION NUMBER: US/10/507,098  
 C--> 16 <141> CURRENT FILING DATE: 2004-09-09  
 16 <150> PRIOR APPLICATION NUMBER: PCT/US03/07511  
 17 <151> PRIOR FILING DATE: 2003-03-12  
 19 <150> PRIOR APPLICATION NUMBER: 60/392,581  
 20 <151> PRIOR FILING DATE: 2002-06-27  
 22 <150> PRIOR APPLICATION NUMBER: 60/363,870  
 23 <151> PRIOR FILING DATE: 2002-03-13  
 25 <160> NUMBER OF SEQ ID NOS: 5  
 27 <170> SOFTWARE: FastSEQ for Windows Version 4.0  
 29 <210> SEQ ID NO: 1  
 30 <211> LENGTH: 1521  
 31 <212> TYPE: DNA  
 32 <213> ORGANISM: Artificial Sequence  
 34 <220> FEATURE:  
 35 <223> OTHER INFORMATION: Codon optimized DNA encoding human HIV-1 gag  
 37 <400> SEQUENCE: 1  
 38 atgggtgcta gggcttctgt gctgtctggt ggtgagctgg acaagtggga gaagatcagg 60  
 39 ctgaggcctg gtggcaagaa gaagtacaag ctaaagcaca ttgtgtgggc ctccaggagg 120  
 40 ctggagaggt ttgctgtgaa ccctggcctg ctggagacct ctgaggggtg caggcagatc 180  
 41 ctgggccagc tccagccctc cctgcaaaca ggctctgagg agctgaggtc cctgtacaac 240  
 42 acagtggcta ccctgtactg tgtgcaccag aagattgatg tgaaggacac caaggaggcc 300  
 43 ctggagaaga ttgaggagga gcagaacaag tccaagaaga aggcccagca ggctgctgct 360  
 44 ggcacaggca actccagcca ggtgtcccag aactaccca ttgtgcagaa cctccagggc 420  
 45 cagatggtgc accaggccat ctccccccgg accctgaatg cctgggtgaa ggtgggtggag 480  
 46 gagaaggcct tctcccctga ggtgatcccc atgttctctg cctgtctga gggtgccacc 540  
 47 cccaggacc tgaacaccat gctgaacaca gtggggggcc atcaggctgc catgcagatg 600  
 48 ctgaaggaga ccatcaatga ggaggctgct gagtgggaca ggctgcatcc tgtgcacgct 660  
 49 ggccccattg ccccccggcca gatgagggag cccaggggct ctgacattgc tggcaccacc 720  
 50 tccaccctcc aggagcagat tggctggatg accaacaacc ccccatccc tgtgggggaa 780  
 51 atctacaaga ggtggatcat cctgggcctg aacaagattg tgaggatgta ctccccacc 840  
 52 tccatcctgg acatcaggca gggccccaag gagcccttca gggactatgt ggacagggtc 900  
 53 tacaagacc tgagggtga gcaggcctcc caggaggtga agaactggat gacagagacc 960  
 54 ctgctggtgc agaatgccaa ccctgactgc aagaccatcc tgaaggccct gggccctgct 1020

ENTERED

## RAW SEQUENCE LISTING

DATE: 09/20/2004

PATENT APPLICATION: US/10/507,098

TIME: 13:34:22

Input Set : A:\21050yp.txt

Output Set: N:\CRF4\09172004\J507098.raw

```

55 gccaccctgg aggagatgat gacagcctgc caggggggtgg ggggccctgg tcacaaggcc 1080
56 aggggtgctgg ctgaggccat gtcccagggtg accaactccg ccaccatcat gatgcagagg 1140
57 ggcaacttca ggaaccagag gaagacagtg aagtgttca actgtggcaa ggtggggccac 1200
58 attgccaaga actgtagggc cccaggaag aagggtgctg ggaagtgtgg caaggagggc 1260
59 caccagatga aggactgcaa tgagaggcag gccaaacttcc tgggcaaaat ctggccctcc 1320
60 cacaagggca ggcctggcaa ctccctccag tccaggcctg agcccacagc cctcccgag 1380
61 gagtccttca ggtttgggga ggagaagacc acccccagcc agaagcagga gccattgac 1440
62 aaggagctgt accccctggc ctccctgagg tccctgtttg gcaacgaccc ctccctccag 1500
63 taaaataaag cccgggcaga t 1521
65 <210> SEQ ID NO: 2
66 <211> LENGTH: 37474
67 <212> TYPE: DNA
68 <213> ORGANISM: Artificial Sequence
70 <220> FEATURE:
71 <223> OTHER INFORMATION: DNA encoding PMRKAd5 HIV-1 gag, coding
73 <400> SEQUENCE: 2
74 ttcttaatta acatcatcaa taatatacct tattttggat tgaagccaat atgataatga 60
75 ggggggtggag tttgtgacgt ggcgcggggc gtgggaacgg ggcgggtgac gtagtagtgt 120
76 ggcggaagtg tgatgttgca agtgtggcgg aacacatgta agcgacggat gtggcaaaag 180
77 tgacgttttt ggtgtgcgcc ggtgtacaca ggaagtgaca attttcgcg cgttttaggc 240
78 ggatgttgta gtaaatttgg gcgtaaccga gtaagatttg gccattttcg cgggaaaact 300
79 gaataagagg aagtgaatc tgaataattt tgtgttactc atagcgcgta atatttgtct 360
80 agggccgcgg ggactttgac cgtttacgtg gagactcgcc cagggtgttt tctcagggtg 420
81 tttccgcgtt ccgggtcaaa gttggcgttt tattattata ggcggccgcg atccattgca 480
82 tacgttgtat ccatatcata atatgtacat ttatattggc tcatgtccaa cattaccgcc 540
83 atgttgacat tgattattga ctagttatta atagtaatca attacggggg cattagttca 600
84 tagcccatat atggagttcc gcgttacata acttacggta aatggcccg cttggctgacc 660
85 gcccaacgac ccccgcccat tgacgtcaat aatgacgtat gttcccatag taacgccaat 720
86 agggactttc cattgacgtc aatgggtgga gtatttacgg taaactgccc acttggcagt 780
87 acatcaagtg tatcatatgc caagtacgcc ccctattgac gtcaatgacg gtaaatggcc 840
88 cgctggcat tatgcccagt acatgacctt atgggacttt cctacttggc agtacatcta 900
89 cgtattagtc atcgctatta ccatggtgat gcggttttgg cagtacatca atgggcgtgg 960
90 atagcggttt gactcacggg gatttccaag tctccacccc attgacgtca atgggagttt 1020
91 gttttggcac caaaatcaac gggactttcc aaaatgtcgt aacaactccg cccattgac 1080
92 gcaaatgggc ggtaggcgtg tacggtggga ggtctatata agcagagctc gtttagtgaa 1140
93 ccgtcagatc gcctggagac gccatccacg ctgttttgac ctccatagaa gacaccggga 1200
94 ccgatccagc ctccgcggcc gggaacgggtg cattggaacg cggattcccc gtgccaagag 1260
95 tgagatctac catgggtgct agggcttctg tgctgtctgg tggtagctg gacaagtggg 1320
96 agaagatcag gctgaggcct ggtggcaaga agaagtacaa gctaaagcac attgtgtggg 1380
97 cctccaggga gctggagagg tttgctgtga accctggcct gctggagacc tctgaggggt 1440
98 gcaggcagat cctgggccag ctccagccct ccctgcaaac aggcctctgag gagctgaggt 1500
99 ccctgtacaa cacagtggct accctgtact gtgtgcacca gaagattgat gtgaaggaca 1560
100 ccaaggaggc cctggagaag attgaggagg agcagaacaa gtccaagaag aaggcccagc 1620
101 aggctgctgc tggcacaggc aactccagcc aggtgtccca gaactacccc attgtgcaga 1680
102 acctccaggg ccagatggtg caccaggcca tctccccccg gaccctgaat gcctgggtga 1740
103 aggtggtgga ggagaaggcc ttctcccctg aggtgatccc catgttctct gccctgtctg 1800
104 aggtgcccac ccccaggac ctgaacacca tgctgaacac agtggggggc catcaggctg 1860
105 ccatgcagat gctgaaggag accatcaatg aggaggctgc tgagtgggac aggcctgcac 1920
106 ctgtgcacgc tggccccatt gccccggcc agatgagggg gccccagggc tctgacattg 1980

```

## RAW SEQUENCE LISTING

DATE: 09/20/2004

PATENT APPLICATION: US/10/507,098

TIME: 13:34:22

Input Set : A:\21050yp.txt

Output Set: N:\CRF4\09172004\J507098.raw

```

107 ctggcaccac ctccaccctc caggagcaga ttggctggat gaccaacaac ccccccattcc 2040
108 ctgtggggga aatctacaag aggtggatca tcttgggcct gaacaagatt gtgaggatgt 2100
109 actccccac ctccatcctg gacatcaggc agggcccca ggagcccttc agggactatg 2160
110 tggacaggtt ctacaagacc ctgagggtcg agcaggcctc ccaggagggtg aagaactgga 2220
111 tgacagagac cctgctgggtg cagaatgcca accctgactg caagaccatc ctgaaggccc 2280
112 tgggccctgc tggccaccctg gaggagatga tgacagcctg ccaggggggtg gggggccctg 2340
113 gtcaacaaggc caggggtgctg gctgaggcca tgtcccagggt gaccaactcc gccaccatca 2400
114 tgatgcagag gggcaacttc aggaaccaga ggaagacagt gaagtgtctc aactgtggca 2460
115 aggtgggcca catttgccaag aactgtaggg cccccaggaa gaagggtctg tggaaagtgtg 2520
116 gcaaggaggg ccaccagatg aaggactgca atgagaggca ggccaacttc ctggggcaaaa 2580
117 tctggccctc ccacaagggc aggcctggca acttcctcca gtccaggcct gagccacag 2640
118 cccctcccga ggagtccttc aggtttgggg aggagaagac cccccccagc cagaagcagg 2700
119 agcccatgga caaggagctg taccctctgg cctccctgag gtccctgttt ggcaacgacc 2760
120 cctcctccca gtaaaataaa gcccgggcag atctgctgtg ctttctagtt gccagccatc 2820
121 tgttgtttgc cctcccccg tgccttcctt gaccctggaa ggtgccactc ccactgtcct 2880
122 ttcctaataa aatgaggaaa ttgcatcgca ttgtctgagt aggtgtcatt ctattctggg 2940
123 ggggtgggtg gggcaggaca gcaaggggga ggattgggaa gacaatagca ggcattgctg 3000
124 ggatgcgggtg ggctctatgg ccgatcggcg gcgcgtactg aaatgtgtgg gcgtggctta 3060
125 aggtgggaa agaatatata aggtgggggt cttatgtagt tttgtatctg ttttgcagca 3120
126 gccgcccgcg ccatgagcac caactcgttt gatggaagca ttgtgagctc atatttgaca 3180
127 acgcgcgatg ccccatgggc cggggtgctg cagaatgtga tgggctccag cattgatggt 3240
128 cgccccgtcc tggccgcaaa ctctactacc ttgacctacg agaccgtgtc tggaaacgccc 3300
129 ttggagactg cagcctccgc cgccgttca gccgtgcag ccaccgcccg cgggattgtg 3360
130 actgactttg ctttctgag cccgcttgca aacagtgcag cttcccgttc atccgcccgc 3420
131 gatgacaagt tgacggctct tttggcacia ttggattctt tgaccggga acttaatgtc 3480
132 gtttctcagc agctgttgga tctgcgccag caggtttctg ccctgaaggc ttctccct 3540
133 cccaatgcgg tttaaaacat aaataaaaaa ccagactctg tttggatttg gatcaagcaa 3600
134 gtgtcttgct gtctttattt aggggttttg cgcgcgcggt agggccggga ccagcggtct 3660
135 cggtcgttga gggctctgtg tattttttcc aggacgtggt aaagggtgact ctggatgttc 3720
136 agatacatgg gcataagccc gtctctgggg tggaggtagc accactgcag agcttcatgc 3780
137 tgcgggggtg tggttagat gatccagtgc tagcaggagc gctgggcgtg gtgcctaaaa 3840
138 atgtctttca gtagcaagct gattgccagg ggcaggccct tgggtgtaagt gttacaaaag 3900
139 cggttaagct gggatgggtg catacgtggg gatagagat gcatcttggg ctgtattttt 3960
140 aggttggtcta tgttcccagc catatccctc cggggattca tgttgtgcag aaccaccagc 4020
141 acagtgtatc cggtgcactt gggaaatttg tcatgtagct tagaaggaaa tgcgtggaag 4080
142 aacttggaag cgcccttgtg acctccaaga tttccatgc attcgtccat aatgatggca 4140
143 atgggcccac gggcggcggc ctgggcgaag atatttctgg gatcactaac gtcatagttg 4200
144 tgttccagga tgagatcgtc ataggccatt tttacaaagc gcgggcggag ggtgccagac 4260
145 tgcggtataa tggttccatc cgcccagggt gcgtagttag cctcacagat ttgcatttcc 4320
146 cacgctttga gttcagatgg ggggatcatg tctacctgcg gggcgatgaa gaaaacggtt 4380
147 tccggggtag gggagatcag ctgggaagaa agcagggtcc tgagcagctg cgacttaccg 4440
148 cagccggtgg gcccgtaaat cacacctatt accggtgca actggtagt aagagagctg 4500
149 cagctgccgt catccctgag cagggggggc acttcgttaa gcatgtccct gactcgcatg 4560
150 ttttccctga ccaaatccgc cagaaggcgc tcgccgcca gcgatagcag ttcttgcaag 4620
151 gaagcaaaagt ttttcaacgg tttgagaccg tccgccgtag gcatgctttt gagcgtttga 4680
152 ccaagcagtt ccaggcggtc ccacagctcg gtcacctgct ctacggcatc tcgatccagc 4740
153 atatctctc gtttcgcggg ttggggcggc tttcgctgta cggcagtagt cgggtgctcg 4800
154 ccagacgggc caggtcatg tctttccacg ggcgcagggt cctcgtcagc gtagtctggg 4860
155 tcacggtgaa ggggtgcgct ccgggtgcg cgctggccag ggtgcgcttg aggtggtcc 4920

```

## RAW SEQUENCE LISTING

DATE: 09/20/2004

PATENT APPLICATION: US/10/507,098

TIME: 13:34:22

Input Set : A:\21050yp.txt

Output Set: N:\CRF4\09172004\J507098.raw

```

156 tgctggtgct gaagcgcctgc cggctcttcgc cctgcgcgcgc gccaggtag catttgacca 4980
157 tgggtgtcata gtccagcccc tccgcggcgt ggcccttggc gcgcagcttg cccttgagg 5040
158 aggcgcgcga cgaggggagc tgcagacttt tgaggcgta gagcttgggc gcgagaaata 5100
159 ccgattccgg ggagtaggca tccgcgcgcgc agggcccgca gacggtctcg cattccacga 5160
160 gccaggtgag ctctggccgt tccgggtcaa aaaccaggtt tccccatgc tttttgatgc 5220
161 gtttcttacc tctggtttcc atgagccggt gtccacgctc ggtgacgaaa aggctgtccg 5280
162 tgtccccgta tacagacttg agaggcctgt cctcgagcgg tgttccgcgg tcctcctcgt 5340
163 atagaaactc ggaccactct gagacaaagg ctgcgcgtcca ggccagcacg aaggaggcta 5400
164 agtgggaggg gtagcggctc ttgtccacta ggggtccac tcgctccagg gtgtgaagac 5460
165 acatgtcgcc ctcttcggca tcaaggaagg tgattggttt gtaggtgtag gccacgtgac 5520
166 cgggtgttcc tgaagggggg ctataaaagg ggggtggggc gcgttcgtcc tactctctt 5580
167 ccgcatcgct gtctgcgagg gccagctgtt ggggtgagta ctccctctga aaagcgggca 5640
168 tgacttctgc gctaagattg tcagtttcca aaaacgagga ggatttgata ttcacctggc 5700
169 ccgcggtgat gcctttgagg gtggccgcgc ccatctggtc agaaaagaca atctttttgt 5760
170 tgtcaagctt ggtggcaaac gacccgtaga gggcggttga cagcaacttg gcgatggagc 5820
171 gcagggtttg gtttttgcgc cgatcggcgc gtccttggtc gcgatggtt agctgcacgt 5880
172 attcgcgcgc aacgcaccgc cattcgggaa agacggtggt gcgtcgtcg ggcaccaggt 5940
173 gcacgcgcca accgcggttg tgcagggtga caaggtcaac gctggtggct acctctccgc 6000
174 gtaggcgctc gttggtccag cagaggcggc cgcccttgcg cgagcagaat ggcggtagg 6060
175 ggtctagctg cgtctcgtcc ggggggtctg cgtccacggt aaagaccccg ggcagcaggc 6120
176 gcgcgtcgaa gtagtctatc ttgcatcctt gcaagtctag cgctgctgc catgcgcggg 6180
177 cggcaagcgc gcgctcgtat ggggtgagtg ggggaccca tggcatgggg tgggtgagcg 6240
178 cggaggcgta catgccgcaa atgtcgtaaa cgtagagggg ctctctgagt attccaagat 6300
179 atgtagggta gcatttcca ccgcggtatg tggcgcgcac gtaatcgtat agttcgtgcg 6360
180 agggagcgag gaggtcggga ccgaggttgc tacgggcggg ctgctctgct cggaagacta 6420
181 tctgcctgaa gatggcatgt gagttggatg atatggttgg acgctggaag acgttgaagc 6480
182 tggcgtctgt gagacctacc gcgtcacgca cgaaggaggc gtaggagtcg cgcagcttgt 6540
183 tgaccagctc ggcggtgacc tgcacgtcta gggcgagta gtccagggtt tccttgatga 6600
184 tgtcatactt atcctgtccc ttttttttcc acagctcgcg gttgaggaca aactcttcgc 6660
185 ggtctttcca gtactcttg atcgaaacc cgtcggcctc cgaacggtaa gagcctagca 6720
186 tgtagaactg gttgacggcc tggtaggcgc agcatccctt ttctacgggt agcgcgtatg 6780
187 cctgcgcggc cttccggagc gaggtgtggg tgagcgcaaa ggtgtccctg accatgactt 6840
188 tgagggtact gtattgaaag tcagtgtcgt cgcacccgag ctgctcccag agcaaaaagt 6900
189 ccgtgcgctt tttggaacgc ggatttggga gggcgaaagg gacatcggtt aagagtatct 6960
190 tccccgcgcg aggcataaag ttgcgtgtga tgcggaagg tccccgcacc tcggaacggt 7020
191 tgttaattac ctgggcggcg agcacgatct cgtcaaaagg gttgatgttg tggccacaa 7080
192 tgtaaagttc caagaagcgc gggatgccct tgatggaagg caatttttta agttcctcgt 7140
193 aggtgagctc ttcaggggag ctgagcccg gctctgaaag ggcccagtct gcaagatgag 7200
194 ggttgaagc gacgaatgag ctccacagg cagggccat tagcatttgc aggtggtcgc 7260
195 gaaaggtcct aaactggcga cctatggcca ttttttctgg ggtgatgcag tagaaggtaa 7320
196 gcgggtcttg tcccagcgg tcccatccaa ggttcgcggc taggtctcgc gcggcagtc 7380
197 ctagaggctc atctccgccc aacttcatga ccagcatgaa gggcacgagc tgcttcccaa 7440
198 agggccccc atcaagtatag gtctctacat cgtagggtgac aaagagacgc tcggtgcgag 7500
199 gatgcgagcc gatcgggaag aactggatct cccgccacca attggaggag tggctattga 7560
200 tgtggtgaaa gtagaagtcc ctgcgacggg ccgaacactc gtgctggctt ttgtaaaaac 7620
201 gtgcgcagta ctggcagcgg tgcacgggct gtacatcctg cacgaggttg acctgacgac 7680
202 cgcgcacaag gaagcagagt ggggaatttg gccctcgcg tggcgggttt ggctggtggt 7740
203 cttctacttc ggctgcttgt ccttgaccgt ctggctgctc gaggggagtt acggtggatc 7800
204 ggaccaccac gccgcgcgag cccaaagtcc agatgtccgc gcgcggcggc cggagcttga 7860

```

## RAW SEQUENCE LISTING

DATE: 09/20/2004

PATENT APPLICATION: US/10/507,098

TIME: 13:34:22

Input Set : A:\21050yp.txt

Output Set: N:\CRF4\09172004\J507098.raw

```

205 tgacaacatc gcgagatgg gagctgtcca tggctctggag ctcccgcggc gtcaggtcag 7920
206 gcgggagctc ctgcaggttt acctcgcata gacgggtcag ggcgcgggct agatccagg 7980
207 gatacctaata tccaggggc tggttgggtg cgcgctcgat ggcttgcaag aggccgcac 8040
208 ccccgcggcg gactacggta ccgcgcggcg ggcggtgggc cgcgggggtg tccttggtatg 8100
209 atgcatctaa aagcggtgac gcgggcgagc ccccgagggt aggggggggt ccggacccgc 8160
210 cgggagaggg ggaggggca cgtcgcgcc gcgcgcgggc aggagctgg gctgcgcgcg 8220
211 taggttgctg gcgaacgcga cgacgcggcg gttgatctcc tgaatctggc gcctctgcgt 8280
212 gaagacgacg ggcccgggtga gcttgaacct gaaagagagt tcgacagaat caatttcgg 8340
213 gtcgttgacg gcggcctggc gcaaaatctc ctgcacgtct cctgagttgt cttgataggc 8400
214 gatctcggcc atgaactgct cgatctcttc ctctggaga tctccgcgtc cggctcgctc 8460
215 cagggtggcg gcgaggtcgt tggaaatgcg ggccatgagc tgcgagaagg cgttgaggcc 8520
216 tccctcgctc cagacgcggc tgtagaccac gccccttcg gcacgcggg cgcgcatgac 8580
217 cacctgcgcg agattgagct ccacgtgccg ggcggaagac gcgtagtctc gcaggcgctg 8640
218 aaagaggtag ttgaggggtg tggcggtgtg ttctgccacg aagaagtaca taaccagcg 8700
219 tcgcaacgtg gattcgttga tatcccccac ggctcaagg cgctccatgg cctcgtagaa 8760
220 gtccacggcg aagttagaaa actgggagtt gcgcgcggac acggttaact ctcctccag 8820
221 aagacggatg agctcggcga cagtgtcgcg cacctcgcg tcaaaggcta caggggcctc 8880
222 ttcttcttct tcaatctcct cttccataag ggctccctc tcttcttct ctggcgcgcg 8940
223 tgggggaggg gggacacggc ggcgacgacg gcgcaccggg aggcggtcga caaagcgctc 9000
224 gatcatctcc ccgcggcgac ggcgcatggt ctcggtgacg gcgcggccgt tctcgcgggg 9060
225 gcgcagttgg aagacgccgc ccgtcatgtc ccggttatgg gttggcgggg ggctgccatg 9120
226 cggcagggat acggcgctaa cgatgcacgt caacaattgt tgttagagta ctccgccgc 9180
227 gagggacctg agcaggtccg catcgaccgg atcggaaaac ctctcgagaa aggcgtctaa 9240
228 ccagtcacag tcgcaaggtg ggctgagcac cgtggcgggc ggacgcgggc ggcggtcggg 9300
229 gttgtttctg gcggaggtgc tgctgatgat gtaattaaag taggcggtct tgagacggcg 9360
230 gatggtcgac agaagcacca tgtccttggg tccggcctgc tgaatgcgca ggcggtcggc 9420
231 catgccccag gcttcgtttt gacatcggcg caggctcttg tagtagtct gcacgagcct 9480
232 ttctaccggc acttcttctt ctcttctc ttgtcctgca tctcttgcat ctatcgctgc 9540
233 ggcgcgcgcg gagtttggcc gttaggtggc cctcttctc cccatgcgtg tgaccccgaa 9600
234 gcccctcatc ggctgaagca gggttaggtc ggcgacaacg cgctcggtc atatggcctg 9660
235 ctgcacctgc gtgagggtag actggaagtc atccatgtcc acaaagcggg ggtatgcgcc 9720
236 cgtgttagat gtgtaagtgc agttggccat aacggaccag ttaacgggtc ggtgacccgg 9780
237 ctgcgagagc tcggtgtacc tgagacgcga gtaagccctc gagtcaaata cgtagtcgtt 9840
238 gcaagtccgc accaggtact ggtatccac caaaaagtgc ggcgcgcggt ggcggtagag 9900
239 gggccagcgt aggggtggcg gggtccggg ggcgagatct tccaacataa ggcgatgata 9960
240 tccgtagatg tacctggaca tccaggtgat gccggcgcg gtggtggagg cgcgcgga 10020
241 gtcgcgagc cggttccaga tgttgcgcag cggcaaaaag tgctccatg tcgggacgct 10080
242 ctggccggtc aggcgcgcgc aatcgttgac gctctagacc gtgcaaaagg agagcctgta 10140
243 agcgggcact cttccgtggg ctggtggata aattcgcaag ggtatcatg cggacgaccg 10200
244 gggttcgagc cccgtatccg gccgtccgcc gtgatccat cggttaccgc ccgctgtcgc 10260
245 aaccaggtg tgcgacgtca gacaacggg gagtgctct tttggcttcc ttccaggcg 10320
246 ggcggtgctg gcgctagctt ttttgccac tggccgcgcg cagcgtaagc ggttaggctg 10380
247 gaaagcgaaa gcattaaagt gctcgctccc tgtagccgga gggtattttt ccaaggggtg 10440
248 agtcgcggga ccccggttc gagtctcgga ccggccggac tgcggcggaac gggggtttgc 10500
249 ctccccgtca tgcaagacct cgcttgcaaa ttctccgga aacagggacg agcccctttt 10560
250 ttgcttttcc cagatgcac cggtgctgc gcagatgcgc cccctctc agcagcgga 10620
251 agagcaagag cagcggcaga catgcaggc accctccct cctcctaccg cgtcaggagg 10680
252 ggcgacatcc gcggttgac cggcagcaga tggtgattac gaaccccg gcgcggggc 10740
253 ccggcactac ctggacttgg aggagggcga gggcctggcg cggctaggag cgccctctcc 10800

```

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/10/507,098

DATE: 09/20/2004

TIME: 13:34:23

Input Set : A:\21050yp.txt

Output Set: N:\CRF4\09172004\J507098.raw

L:16 M:270 C: Current Application Number differs, Replaced Current Application No

L:16 M:271 C: Current Filing Date differs, Replaced Current Filing Date